The following is a complete listing of the claims in this application, reflects all changes currently being made to the claims, and replaces all earlier versions and all earlier listings of the claims:

1. (Currently Amended) ~~Method~~ A method of transforming a digital signal representing a physical quantity, into signals of frequency sub-bands distributed in at least two different frequency bands and in at least two different resolutions, ~~characterised in that it includes~~ comprising the steps of:

= dividing ~~(E1, E18)~~ the signal into first blocks ~~(B_i)~~ all having a same predetermined first number of samples,

= transforming ~~(E4)~~ each of the first blocks ~~formed at the previous step~~ into a plurality of second blocks, any second block under consideration having a second respective number of samples which depends on the resolution of the second block under consideration, and containing samples selected according to their frequency,

= grouping second blocks having the same second number of samples and samples selected according to the same frequency band, and issuing from the transformation of different first blocks in order to form third blocks all having a same predetermined third number of samples which is at least equal to the largest of the second numbers.

2. (Currently Amended) ~~Transformation~~ The method according to Claim 1, ~~characterised in that~~ in which the transformation is a wavelet transformation.

3. (Currently Amended) ~~Transformation~~ The transformation method according to Claim 1 or 2, ~~characterised in that~~ in which the first blocks (B_i) overlap in pairs on a fourth predetermined number of samples.

4. (Currently Amended) ~~Transformation~~ The method according to Claim 1 or 2, ~~characterised in that~~ in which the first blocks (B_i) are adjacent.

5. (Currently Amended) ~~Transformation~~ The method according to Claim 1 or 2, ~~characterised in that~~ in which the first blocks are processed in a predetermined order, such that the signal is transformed zone by zone, a zone of the signal being processed at all the resolution levels before passing to a following zone.

6. (Canceled)

7. (Currently Amended) ~~Method~~ A method of coding a digital signal representing a physical quantity, into signals of frequency sub-bands distributed in at least two different frequency bands and in at least two different resolutions, ~~characterised in that it includes~~ comprising the steps of:

= dividing the signal into first blocks (B_i) all having a same predetermined first number of samples,

= transforming $(E4)$ each of the first blocks ~~formed at the previous step~~ into a plurality of second blocks, any second block under consideration having a

second respective number of samples which depends on the resolution of the second block under consideration, and containing samples selected according to their frequency,

= grouping second blocks <u>having the same second number of samples and samples selected according to the same frequency band, and</u> issuing from the transformation of different first blocks in order to form third blocks all having a same predetermined third number of samples which is at least equal to the largest of the second numbers.

8. (Currently Amended) ~~Coding~~ <u>The</u> method according to Claim 7, ~~characterised in that~~ <u>in which</u> the transformation is a wavelet transformation.

9. (Currently Amended) ~~Coding~~ <u>The</u> method according to Claim 7 or 8, ~~characterised in that~~ <u>in which</u> the first blocks (B_i) overlap in pairs on a fourth predetermined number of samples.

10. (Currently Amended) ~~Coding~~ <u>The</u> method according to Claim 7 or 8, ~~characterised in that~~ <u>in which</u> the first blocks (B_i) are adjacent.

11. (Currently Amended) ~~Coding~~ <u>The</u> method according to Claim 7 or 8, ~~characterised~~ in ~~that~~ <u>which</u> the first blocks (B_i) are processed in a predetermined order, such that the signal is transformed zone by zone, a zone of the signal being processed at all the resolution levels before passing to a following zone.

12. (Canceled)

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13. (Currently Amended) ~~Coding~~ The method according to Claim 7 or 8, ~~characterised in that it includes~~ further comprising the steps ~~(E9, E11, E13, E15, E18)~~ of ~~quantisation~~ quantization and entropic coding of the transformed signal.

14. (Currently Amended) ~~Method~~ The method according to any one of Claims 1, 2, 7, and 8, ~~characterised in that~~ in which the digital signal is an image signal.

15. (Currently Amended) ~~Device~~ A device for transforming a digital signal representing a physical quantity~~,~~ into signals of frequency sub-bands distributed according to at least two different frequency bands and according to at least two different resolutions, ~~characterised in that it has~~ comprising:

= means ~~of~~ for dividing the signal into first blocks ~~(B$_i$)~~ all having a same predetermined first number of samples,

= means ~~of~~ for transforming ~~(22, 23)~~ each of the first blocks into a plurality of second blocks, any second block under consideration having a second respective number of samples which depends on the resolution of the second block under consideration, and containing samples selected according to their frequency, and

= means ~~of~~ for grouping ~~(25)~~ second blocks having the same second number of samples and samples selected according to the same frequency band, and issuing from the transformation of different first blocks in order to form third blocks all having a

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same predetermined third number of samples which is at least equal to the largest of the second numbers.

16. (Currently Amended) ~~Transformation~~ The device according to Claim 15, ~~characterised in that~~ in which the transformation means are adapted to implement a wavelet transformation.

17. (Currently Amended) ~~Transformation~~ The device according to Claim 15 or 16, ~~characterised in that~~ in which the division means are adapted to form first blocks which overlap in pairs on a fourth predetermined number of samples.

18. (Currently Amended) ~~Transformation~~ The device according to Claim 15 or 16, ~~characterised in that~~ in which the division means are adapted to form first blocks which are adjacent.

19. (Currently Amended) ~~Transformation~~ The device according to Claim 15 or 16, ~~characterised~~ in which that it is adapted to process the first blocks in a predetermined order, such that the signal is transformed zone by zone, a zone of the signal being processed at all the resolution levels before passing to a following zone.

20. (Canceled)

21. (Currently Amended) ~~Device~~ A device for coding a digital signal representing a physical quantity, into signals of frequency sub-bands distributed according to at least two different frequency bands and according to at least two different resolutions, ~~characterised in that it has;~~ comprising:

= means ~~of~~ for dividing the signal into first blocks ~~(B;)~~ all having a same predetermined first number of samples,

= means ~~of~~ for transforming ~~(22, 23)~~ each of the first blocks formed at the previous step into a plurality of second blocks, any second block under consideration having a second respective number of samples which depends on the resolution of the second block under consideration, and containing samples selected according to their frequency, and

= means ~~of~~ for grouping ~~(25)~~ second blocks having the same second number of samples and samples selected according to the same frequency band, and issuing from the transformation of different first blocks in order to form third blocks all having a same predetermined third number of samples which is at least equal to the largest of the second numbers.

22. (Currently Amended) ~~Coding~~ The device according to Claim 21, ~~characterised in that~~ in which the transformation means are adapted to implement a wavelet transformation.

23. (Currently Amended) ~~Coding~~ The device according to Claims 21 or 22, ~~characterised in that~~ in which the division means are adapted to form first blocks which overlap in pairs on a fourth predetermined number of samples.

24. (Currently Amended) ~~Coding~~ The device according to Claim 21 or 22, ~~characterised in that~~ in which the division means are adapted to form first blocks which are adjacent.

25. (Currently Amended) ~~Coding~~ The device according to Claim 21 or 22, ~~characterised in that it is adapted to process~~ wherein said device processes the first blocks in a predetermined order, such that the signal is transformed zone by zone, a zone of the signal being processed at all the resolution levels before passing to a following zone.

26. (Canceled)

27. (Currently Amended) ~~Coding~~ The device according to Claim 21 or 22, ~~characterised in that it has~~ further comprising means ~~(26)~~ for the ~~quantisation~~ quantization and entropic coding of the transformed signal.

28. (Currently Amended) ~~Device~~ The device according to any one of Claims 15, 16, 21, and 22, ~~characterised in that it is~~ adapted to process a digital signal which is an image signal.

29. (Currently Amended) ~~Device~~ The device according to any one of Claims 15, 16, 21, and 22, ~~characterised in~~ such that the division, transformation and grouping means are incorporated in:

= a controller ~~(20)~~,

- a read only memory containing a program for coding each of the blocks of data, and

= a random access memory containing registers adapted to record variables modified during the running of ~~said~~ the program.

30. (Currently Amended) ~~Digital~~ A digital apparatus ~~(10)~~ including means of implementing the transformation method according to any one of Claims 1, 2, 7, and 8.

31. (Currently Amended) ~~Digital~~ A digital apparatus ~~(10)~~ including the device according to any one of Claims 15, 16, 21, and 22.